

Serial No. 60/142,053 (Attorney Docket No. 10551-28), titled "Electro-Active Spectacles," filed 2 July 1999;

Serial No. 60/143,626 (Attorney Docket No. 10551-30), titled "Electro-Active Spectacles," filed 14 July 1999;

Serial No. 60/147,813 (Attorney Docket No. 10551-41), titled "Electro-Active Refraction, Dispensing, & Eyewear," filed 10 August 1999;

Serial No. 60/150,545 (Attorney Docket No. 10551-42), titled "Advanced Electro-Active Spectacles," filed 25 August 1999;

Serial No. 60/150,564 (Attorney Docket No. 10551-43), titled "Electro-Active Refraction, Dispensing, & Eyewear," filed 25 August 1999; and

Serial No. 60/161,363 (Attorney Docket No. 10551-50), titled "Comprehensive Electro-Active Refraction, Dispensing, & Eyewear," filed 26 October 1999.

IN THE CLAIMS:

Please amend claims 259-260, 264-265, 268, 272, 275-276, 279, 281-283, 285-286, 288-289, 293, 301 and 304 to read as follows:

259. (Amended) An optical lens system for refracting light passing through a lens comprising:

a lens having a first focal length; and,

an electro-active region coupled to the lens,

the electro-active region, when activated, altering the focal length of a first portion of the lens system above a 180 degree meridian of the lens to a second focal length, the second focal length different from the first focal length

the electro-active region positioned to refract less than all of the light passing through the lens when the lens system is in use.

260. (Amended) The optical lens system of claim 259 further comprising:

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a controller controlling the activation of the electro-active region, the controller programmed to introduce a desired delay in the activation of the electro-active region from the time in which the controller receives a signal to activate the electro-active region.

264. (Amended) An optical lens system comprising:

a lens having a first focal length; and,

an electro-active region coupled to the lens,

the electro-active region, when activated, altering the focal length of a first portion of the entire lens system to a second focal length, the second focal length different from the first focal length,

the lens system having two focal lengths when the electro-active region is activated, the electro-active region having a first outside surface and a second outside surface, the first outside surface being equidistant from the second outside surface.

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265. (Amended) An optical lens system comprising:

a lens having a first focal length; and,

an electro-active region coupled to the lens,

the electro-active region, when activated, altering the focal length of a first portion of the lens system to a second focal length, the second focal length different from the first focal length, the lens system having two different focal lengths when the electro-active region is activated,

the second focal length determined by the distance vision needs of a user,

wherein a fixed outer surface of the electro-active region facing away from a wearer has a radius of curvature proportional to a radius of curvature of the lens adjacent to the electro-active region.

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268. (Amended) The optical lens system of claim 259 wherein the electro-active region is adapted to correct the refractive error of a user to substantially 20/20 distance vision.

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272 (Amended) An optical lens system comprising:

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a lens having a first focal length; and,

an electro-active region coupled to the lens,

the electro-active region, when activated, altering the focal length of a first portion of the lens system to a second focal length, the second focal length different from the first focal length, wherein the lens has two fixed focal lengths.

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275. (Amended) The optical lens system of claim 259 wherein the electro-active region is releasably attached to the lens.

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276. (Amended) The optical lens system of claim 259 wherein the lens system includes a polymer gel and a liquid crystal.

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279. (Amended) An optical lens system comprising:

a lens having a first focal length;

an electro-active region coupled to the lens,

the electro-active region, when activated, altering the focal length of a first portion of the lens system to a second focal length, the second focal length different from the first focal length; and, a tint effect electro-active region coupled to the lens.

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281. (Amended) An optical lens system comprising:

a lens having a first focal length;

an electro-active region coupled to the lens,

the electro-active region, when activated, altering the focal length of a first portion of the lens system to a second focal length, the second focal length different from the first focal length; and, an anti-reflective coated electro-active region coupled to the lens.

282. (Amended) An optical lens system comprising:

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a lens having a first focal length; and,

an electro-active region coupled to the lens,

the electro-active region, when activated, altering the focal length of a first portion of the lens system to a second focal length, the second focal length different from the first focal length, wherein the lens system includes an image shifting prismatic zone in the electro-active region.

283. (Amended) The optical lens system of claim 259 further comprising:

an eyeglass frame coupled to the lens.

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285. (Amended) The optical lens system of claim 284 wherein the phoropter contains a plurality of fixed focal length lenses.

286. (Amended) The optical lens system of claim 285 wherein light passing through the phoropter passes through one of the lenses from the plurality of fixed focal length lenses and the electro-active region.

288. (Amended) The optical lens system of claim 259 further comprising:

a range finder coupled to a surface of the lens.

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289. (Amended) An optical lens system comprising:

a lens having a first focal length; and,

an electro-active region coupled to the lens,

the electro-active region, when activated, altering the focal length of a first portion of the lens system to a second focal length, the second focal length different from the first focal length wherein the electro-active region contains a fail-safe zone usable to view objects in the distance when the electro-active region malfunctions.

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293. (Amendment) An optical lens system comprising:

a lens having a first focal length; and,

an electro-active region coupled to the lens,

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the electro-active region, when activated, altering the focal length of a first portion of the lens system to a second focal length, the second focal length different from the first focal length, wherein the electro-active region is a defined near vision electro-active region located intermittently above a 180 degree meridian of the lens.

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301. (Amended) The optical lens system of claim 259 wherein the lens is a semi-finished eyeglass lens blank.

304. (Amended) An optical lens system for refracting light passing through a lens comprising:

a lens having a fixed focal length; and

an electro-active region coupled to the lens,

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the coupled lens and electro-active region creating more than one simultaneous focal length for the lens system when the electro-active region is activated,
the electro-active region positioned at least partially above a 180 degree meridian line of the lens, the electro-active region sized to refract less than 50% of the light passing through the lens.

Please add the following new claims:

305. (New) An electro-active lens comprising:

an electro-active layer; and

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a lens optic with diffraction patterns etched on a side of the optic adjacent to the electro-active layer, the optic being in optical communication with the electro-active layer.

306. (New) An electro-active lens comprising:

an electro-active layer; and

a conductive layer comprising a pattern of electrodes electrically connected to the electro-active layer.

307. (New) An electro-active lens comprising:

an electro-active layer; and
a lens optic in optical communication with the electro-active layer,
the electro-active lens providing a reading zone when in an activated state.

308. (New) An electro-active lens comprising:
an electro-active layer; and
a lens optic in optical communication with the electro-active layer,
the electro-active lens providing a distance correction when in an unactivated state.

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309. (New) An electro-active lens comprising:
an electro-active layer; and
a lens optic in optical communication with the electro-active layer,
the electro-active lens providing an intermediate distance correction when in an activated state.

310. (New) The optical lens system of claim 259 wherein the electro-active region contains a fail-safe zone usable to view objects in the distance when the electro-active region malfunctions.

311. (New) The electro-active lens of claim 305 wherein the lens optic also contains a diffractive pattern etched on a second side of the optic adjacent to a second electro-active layer.

312. (New) The eletro-active lens of claim 306 wherein the conductive layer is transparent.